

MULTI-MODE UNINTERRUPTIBLE POWER SUPPLIES AND METHODS OF OPERATION THEREOF

ABSTRACT OF THE DISCLOSURE

An uninterruptible power supply apparatus includes a first bidirectional power converter circuit having first and second ports and a second bidirectional power converter circuit having first and second ports. The apparatus further includes a DC link that couples the second port of the first bidirectional power converter circuit to the first port of the second bidirectional power converter circuit. A first load port is coupled to the second port of the second bidirectional power converter circuit and a second load port is coupled to the first port of the first bidirectional power converter circuit. The apparatus further includes a control circuit that is configured to control the first and second bidirectional power converter circuits such that each of the first and second bidirectional power converter circuits can generate and/or condition AC power at each of the first and second load ports.